AMENDMENTS TO THE CLAIMS

1. (Currently amended) [[The]] A method of compressing and processing for multi-screens a plurality of digital video signals on respective channels by multi-thread scaling, which uses a single integrated analog/digital converter for each channel, said method comprising:

(a) outputting scaled scaling digital video signals outputted from analog/digital converters to have having a first resolution for compression[[,]] or to have having a second resolution for a multi-screen process depending on [[the]] even/odd fields of [[the]] input video signals; and

(b) storing and compressing the scaled digital video signals of the first resolution, or storing and processing for multi-screens the scaled digital video signals of the second resolution.

2. (Previously presented) The method of Claim 1, wherein:

at said step (a), the video signals are scaled to have a resolution for compression in the even field.

3. (Previously presented) The method of Claim 2, wherein:

the first resolution for compression is 352x240.

4. (Previously presented) The method of Claim 2, wherein:

at said step (a), the video signals are scaled to have the second resolution for a multi-screen process in the odd field.

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5. (Previously presented)   The method of Claim 4, wherein:

the multi-screen process is the process for one of 4 screens, 9 screens and 16

screens.

6. (Previously presented)   The method of Claim 5, wherein:

the second resolution for 4 screens is 360x240;

the second resolution for 9 screens is 240x160; and

the second resolution for 16 screens is 180x120.

7. (Currently amended) A device for compression and multi-screen processing

of digital video signals by multi-thread scaling comprising:

multi-channel analog/digital converters for receiving input video signals, for

generating even/odd field indicators based on input video signals, and for converting

the input video signals to digital video signals and scaling the input digital video

signals to have a first resolution for compression or to have a second resolution for a

multi-screen process based on the even/odd field indicators, without storing the input

video signals;

a compression FIFO for storing video signals scaled to have the first resolution

outputted from the multi-channel analog/digital converters;

a multi-screen FIFO for storing video signals scaled to have the second

resolution outputted from the multi-channel analog/digital converters;

a CPU for initializing the multi-channel analog/digital converters, the

compression FIFO, and the multi-screen FIFO, and for compressing the video signals

stored in the compression FIFO; and

a video processor for processing and transmitting an output of the multi-screen

FIFO to the video memory according to a pre-determined rule for the multi-screen

process,

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wherein the multi-channel analog/digital converters, the compression FIFO, the multi-screen FIFO, the CPU and the video processor are integrated on a single board.

8. (Previously presented) The device of Claim 7, wherein the first resolution is 352x240, if the field indicator is even; and

the second resolution is one of 180x120 for 16 screens, 240x160 for 9 screens, and 360x240 for 4 screens, if the field indicator is odd.

9. (Previously presented) The device of Claim 7, wherein:

said CPU is programmed to control the operation registers of the analog/digital converters so that the video signals may be scaled to have the resolution of one of 180x120 for 16 screens, 240x160 for 9 screens, and 360x240 for 4 screens in the event that the field indicator is odd.

10. (Currently amended) A method of compressing and processing digital video signals on respective channels by multi-thread scaling comprising the steps of:

receiving input video signals;

converting the input video signals to digital signals within a plurality of integrated analog/digital converters, each analog/digital converter corresponding to a channel; respectively and

outputting generating an indicator signal indicating whether the field corresponding to each of the input video signals is a[[n]] first type field or a[[n]] second type field, wherein the generating occurs within the respective analog/digital converters;

scaling the digital signals having a first type field indicator signal to have a first resolution for compression in the first type field and scaling the digital signals having a second type field indicator signal to have a second resolution for multi-screen

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processing, <u>wherein the scaling of each digital signal occurs within the respective</u> <u>analog/digital converters</u> ~~in the second type field~~;

storing the scaled digital signals for compression in at least one compression FIFO, and <u>storing</u> the scaled digital signals for multi-screen processing in at least one multi-screen FIFO;

compressing an output of the compression FIFO; and

processing an output of the multi-screen FIFO according to a pre-determined rule for the multi-screen processing.

11. (Previously presented) The method of Claim 10, wherein the first type field is an even field, and the second type field is an odd field.

12. (Previously presented) The method of Claim 10, wherein the first type field is an odd field, and the second type field is an even field.

13. (Previously presented) The method of Claim 10, wherein the first resolution is 352x240; and the second resolution is one of 360x240, 240x160, and 180x120.

14. (Currently amended) [[The]] <u>A</u> method of compressing and processing for multi-screens a digital video signal[[s]] on a channel by multi-thread scaling, which uses a single integrated analog/digital converter, <u>said method</u> comprising:

(a) <u>outputting a scaled</u> ~~scaling~~ digital video signal[[s]] ~~outputted~~ from the analog/digital converter ~~to have~~ <u>having</u> a first resolution for compression[[,]] or ~~to have~~ <u>having</u> a second resolution for a multi-screen process depending on the even/odd fields of the input video signal; and

(b) storing and compressing the scaled digital video signal of the first resolution, or storing and processing for multi-screens the scaled digital video signal of the second resolution.

15. (New) The device of claim 7, wherein the device for compression and multi-screen processing of digital video signals by multi-thread scaling is a non-PC based device.

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